Remarks

Reconsideration of this Application is respectfully requested.

Claims 21-25 and 32-35 are pending in the application, with claim 21 being the independent claim. No amendments have been made at this time.

Based on the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding rejections and that they be withdrawn.

Obvious-Type Double Patenting Rejection

The Examiner has rejected claims 21-25 and 32-35 under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over claims 1, 3, and 9 of U.S. Patent No. 7,006,806 ("the '806 patent"). (*See* Office Action, pages 5-7.)

Applicant respectfully requests that the currently asserted double patenting rejection be held in abeyance until claimed subject matter is otherwise deemed allowable. After analyzing the final allowed claim scope, Applicant will consider filing a terminal disclaimer if necessary to overcome an obviousness-type double patenting rejection.

Rejection under 35 U.S.C. § 103

Claims 21-25 and 32-35 have been rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 5,404,405 to Collier *et al.* ("Collier") in view of U.S. Patent No. 4,716,589 to Matsui ("Matsui"), and in further view of U.S. Patent No. 6,002,726 to Simanapalli *et al.* ("Simanapalli"). For the reasons set forth below, Applicant respectfully traverses the rejection and the Response to Arguments on pages 7 and 8 of the Office Action.

Independent claim 21 recites features that distinguish over the applied references. For example, claim 21 recites, among other features, "a denominator device that estimates a value of 1/X(n) based at least in part on a prior estimated value of 1/X(n) ***and a transition speed of X(n)***" (emphasis added).

The Examiner, on pages 3 and 8 of the Office Action, relies only on Simanapalli to allegedly teach at least the above-noted distinguishing feature. Applicant respectfully disagrees.

As stated on page 6 of the Reply of June 4, 2009, which is fully incorporated by reference, Applicant stated the equations of Simanapalli do not include, nor make use of, "a transition speed of X(n)" as recited in claim 21. Rather than a transition speed, as claimed, Applicant stated Simanapalli teaches r(n) and x(n+1) each represent a single sample of their respective signals. A single sample, as taught in Simanapalli, does not convey any information regarding the claimed ***transition speed*** of a respective signal. Any allegations otherwise by the Examiner is merely improper speculation or conjecture of what ***may*** be taught in Simanapalli rather than what is taught.

It appears the Examiner is relying on improper speculation of what Simanapalli ***may*** be teaching in the conclusory statements. In an exemplary post-KSR BPAI decision, *Ex Parte* Kamran Ahmed, Appeal 2007-2765, App. 09/526,442, Decided Feb. 11, 2008 at page 6, the Board opined "Further, a rejection based on section 103 must rest upon a factual basis rather than conjecture, or speculation. 'Where the legal conclusion [of obviousness] is not supported by the facts it cannot stand.' (quoting *In re Warner*, 379 F.2d 1011, 1017 (CCPA 1967)). See also *In re Kahn*, 441 F.3d at 988." Also, on page 10 of *Ex Parte* Ahmed, the

Board held the Examiner relied on improper speculation, and reversed the obviousness rejection.

The Examiner next provides a conclusory statement on page 8 of the Office Action, in the "Response to Arguments" section that,

> [t]he examiner firmly believe (sic) the secondary reference by Simanapalli discloses the context of the phrase "the transition speed of X(n)" within the operational block 78 of Figure 3 wherein the current estimated value r[n+1] (e.g. as y[n]) is also based on value (sic) of current input sample x[n+1] and the previous estimated value r[n]. This product is called transition speed of x[n] since the value of x[n] would indicate the amount of transition of final computed result.

The Examiner has failed to meet the burden with this conclusory statement of how Simanapalli teaches the claimed features using articulated reasoning with rational underpinning. In *KSR* the Court noted that "[t]o facilitate review, this analysis should be made explicit." *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1740-41 (2007) (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness")). *Id.*

Applicant submits that Simanapalli ***cannot*** disclose the claimed "a denominator device that estimates a value of 1/X(n) based at least in part on ... a transition speed of X(n)." This is because Simanapalli ***requires*** that the sampling rate (*transition speed of X(n)* as alleged by the Examiner) be sufficiently high (and remain sufficiently high) such that the envelope changes between adjacent samples are very small. For example, Simanapalli teaches the equations given in operational block 78 of Figure 3 ***only hold true when*** "the envelope changes between adjacent samples are very small if the sampling rate is sufficiently high[.]" (*See* Simanapalli, column 5, lines 34-52). Thus, Simanapalli teaches of wanting

substantially no speed changes of X(n) since Simanapalli teaches of trying to maintain small or no envelope changes between adjacent samples. This teaching in Simanapalli is fundamentally different from at least the above noted distinguishing feature.

For example, because Applicant's claimed embodiments allow the transition speed of X(n) to change, claim 35 recites, using respective language, a compensation variable based on the changing transition speed of X(n). Claim 35 recites, in part, "wherein the value of the scaling coefficient is based on the transition speed of X(n)[,]" so that the claimed denominator device compensates for changes in the "transition speed of X(n)." In contrast, Simanapalli teaches requiring the sample rate to remain substantially high such that the envelope changes remain very small.

Therefore, Applicant submits that because the disclosure of Simanapalli only holds true when the ***sampling rate*** is sufficiently high and remains sufficiently high (*e.g.*, substantially no speed changes of X(n) as noted above), Simanapalli does not disclose "a denominator device that estimates a value of 1/X(n) based at least in part on a prior estimated value of 1/X(n) ***and a transition speed of X(n)***" as recited in claim 21 (emphasis added).

For at least the foregoing reasons, as Simanapalli does not cure the deficiencies noted by the Examiner in Collier and Matsui, independent claim 21 is patentable over the combination of Collier, Matsui, and Simanapalli. Dependent claims 22-25 and 32-35 are similarly patentable over the combination of Collier, Matsui, and Simanapalli for at least the same reason as claim 21, from which they depend, and further in view of their own respective features. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 21-25 and 32-35.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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